

(12) INTERNATIONAL APPLICATION PUBLISHED IN ACCORDANCE WITH THE
PATENT CO-OPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Office

[WIPO
logo]

[bar code]

(43) Date of International Publication:
December 29, 2004 (12/29/2004)

PCT

(10) International Publication Number:
WO 2004/113051 A1

(51) International Patent Classification⁷: **B29C 47/16**

(21) International Appl. No.: **PCT/EP2004/002782**

(22) Filed: **March 18, 2004 (3/18/2004)**

(25) Language submitted in: **German**

(26) Language published in: **German**

(30) Priority Data
103 28 104.5 June 20, 2003 (6/20/2003) DE

(71) Applicants (for all designated states except the US):
BREYER GMBH MASCHINENFABRIK [DE/DE];
Gewerbestrasse 1, 78224 Singen (DE)

(72) Inventors; and

(75) Inventors/Applicants (only for US):
VOGELBACHER, Gerhard [DE/DE]; 75, Am
Posthalterswäldle, 78224 Singen (DE). BARTHEL,
Hubertus [DE/DE]; 18, Kastanienweg, 78269
Volkertshausen (DE). PHAM, Van, Thinh [DE/DE]; 19,
Bleicherweg, 78463 Konstanz (DE).

(74) Agent: **WEISS, Peter; 4, Zeppelinstrasse, 78234 Engen**
(DE).

(81) Designated States (insofar as others are not indicated for all available types of regional protection):
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

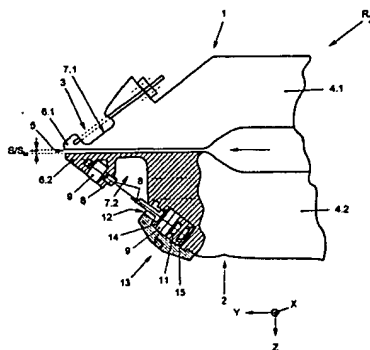
(84) Designated States (insofar as others are not indicated for all available types of regional protection):
ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *With an international research report*

For explanation of the two-letter codes and other abbreviations, please see the section entitled "Guidance Notes on Codes and Abbreviations" at the beginning of every regular edition of the PCT gazette.

(54) Title: **EXTRUSION DIE HAVING AT LEAST ONE FLEXIBLE LIP ELEMENT**



(57) Abstract: The invention relates to an extrusion die having at least one flexible lip element (1, 2) for discharging extruded material from a gap (S), the flow cross section of which can be modified. The invention is characterized in that at least one flexible lip element (2) can be moved relative to the other lip element (1) by means of a plurality of jointly actuatable lever elements (8).